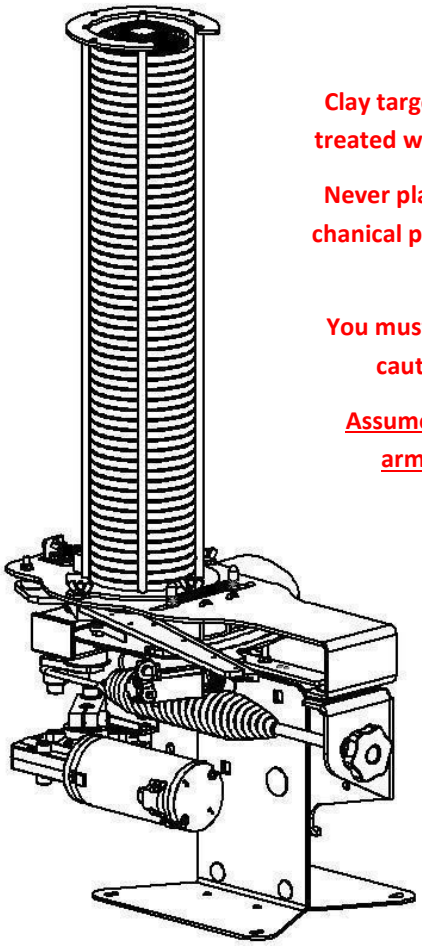
Operating Instructions
Hobby - Clay target launcher



WARNING

Clay target launchers can be dangerous and must be treated with great care at all times to avoid accidents.

Never place any bodily part into the path of any mechanical piece whilst the machine is in motion or likely to be so.

You must treat a clay target launcher with the same caution that you would treat a loaded gun.

Assume at all times that a clay target launcher is armed and loaded and treat it accordingly

Specifications:

Single column 55 target hopper.

Weight: 34.5kg / 76 lbs

Length: 490mm / 19 ¼“

Width: 420mm / 16 ½ “

Height: 940mm / 37” (On tilt base)

Power: 12vDC Rechargeable battery

This document must be read in full before attempting to operate the machine

Preface:

Every effort has been made to ensure that the information contained within this manual is complete, accurate and up-to-date. Promatic International assumes no responsibility for errors beyond its control.

Conventions used within this manual:

Trap: Your Hobby - Clay target launcher—commonly known as a clay trap and may be referred to in this manual as “The trap” or “The machine”

Warnings & Cautions:

Warning: This section contains instructions which, if ignored or carried out incorrectly, may result in risk of personal injury**.**

Caution: This section contains instructions which, if ignored or carried out incorrectly, may result in malfunction or damage to the equipment

Note: This section contains additional information which the user may find useful, but is not essential to the operation of the product.

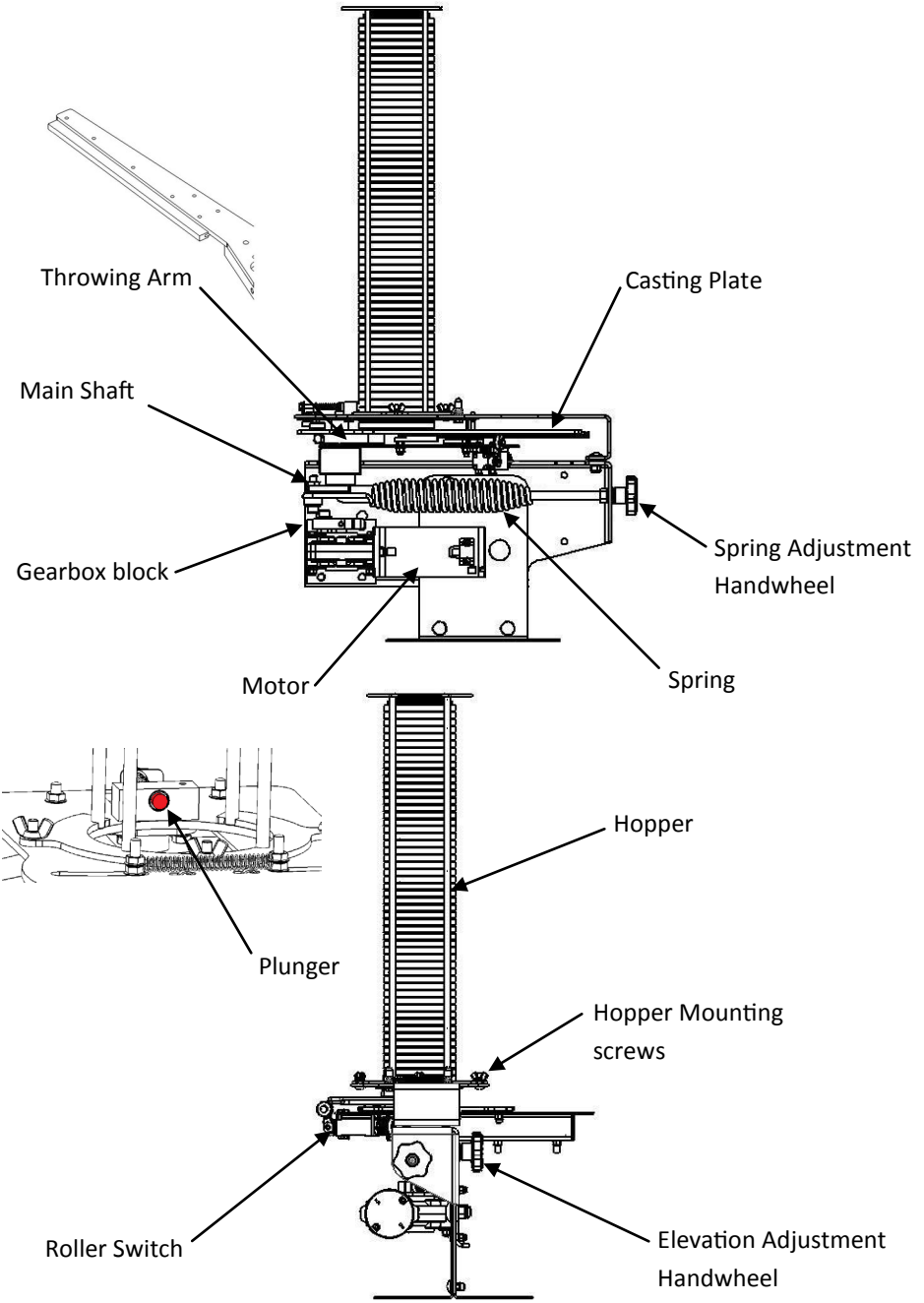
12v DC Power Source:

This product is designed to be powered from a 12v DC battery, it SHOULD NOT BE DIRECTLY CONNECTED TO HOUSEHOLD AC POWER

Battery: Where a trap is connected to any other suitable power source i.e. a Transformer - the relevant sections of instructions should still be observed, i.e. “Disconnect the battery” and applied to this or any other power source.

EYE PROTECTION MUST BE WORN WHEN WORKING ON OR AROUND A CLAY TARGET LAUNCHER AS SMALL SHARP PIECES OF CLAY MAY BE EJECTED DURING NORMAL USE.

Understanding your new trap:



Connecting the battery:

Ensure you are behind the machine, the **ARM/DISARM** switch is in the **OFF** position and it is otherwise safe to proceed. Connect the red cable to the Red (+) terminal and the black cable to the Black (-) Terminal. Ensure the terminal fasteners are tight, the battery is securely strapped to its tray and the charger has been removed.

Never approach the machine from the front or sides, Do not assume the trap is safe even without electrical power it may still be armed.

Electrical Troubleshooting :

Trap fails to re-arm - after a period of prolonged use the trap fails to re-arm itself and is found to be stalled (may also be making a humming sound) then this is an indication that the battery is depleted, and the voltage has fallen too low to operate the trap. Disconnect the battery immediately and re-charge (or fit a replacement fully-charged battery).

Although the battery may appear to have recovered, the trap should not be used any further than necessary to make it safe as this may cause damage to the motor, Battery or other electrical circuits.

Trap fires by itself - Disconnect any external cable and switch the trap back on. If the trap arms normally then the command cable is faulty. If the trap continues to fire, switch the machine off and disconnect the battery. Check the roller switch is moving freely and an audible click can be heard when it is moved. Re-test the machine. If the machine still fires by itself then the Roller switch is faulty and must be replaced.

Circuit breaker has operated - The battery may have been incorrectly fitted (terminals reversed) or an excessive amount of current was drawn either due to a fault or obstruction within the trap.

If the circuit breaker has tripped due to an obstruction DO NOT ASSUME THE TRAP IS SAFE it may still be armed with the obstruction holding back the energy from the spring - carefully clear the obstruction whilst remaining in the safe area behind the trap BE AWARE of the path of the throwing arm AND the debris that may be ejected.

Positioning the machine

1. Clay Target Launchers must be situated on firm level ground in a position that will allow unrestricted access to rear of machine.
2. There must be no obstructions to the path of the throwing arm.
3. Ensure that the power supply can be easily disconnected and cables cannot become tangled in any part of the mechanism.

Firing the machine

1. Turn the **ON/OFF** or ⏻ switch (if fitted) to the ON or | position and set the **ARM/DISARM** switch to the **ARM/LOAD** position. The machine will move automatically and arm itself ready to launch a loaded clay.
2. Press the **FIRE** button on the command cable to throw a clay.
3. The machine will fire every time the **FIRE** button is pressed and will automatically rearm itself, until disarmed and switched off or disconnected.

Disarming the machine

1. To disarm the machine push the **ARM/DISARM** switch upwards to the **DISARM** position and immediately release (long enough for the trap to fire, but not giving the machine a chance to rearm).
2. Turn the **ON/OFF** or ⏻ switch (if fitted) to the ON or ○ position and disconnect the battery.

Ensure the machine is stable on firm level ground before use.
Bolt the machine to a solid base or the Optional Trolley Base.

ALWAYS disarm the machine before any loading, adjustment or maintenance.
ALWAYS load clays from rear and **ONLY** if the machine is disarmed and safe.
NEVER approach the machine from the front or sides. **ALWAYS** from the rear.
NEVER allow children or untrained persons to approach or touch the machine.
NEVER move an armed/loaded machine. **ALWAYS** disarm and disconnect battery.
REMOVE the main throwing spring before Transport in a vehicle.
BE AWARE of the fall zone of both broken and unbroken clays and that a change in wind direction will affect this.

Safe Mode Procedure - Warning: Stand at rear of machine only

1. Disarm the machine by flicking the **ARM/DISARM** switch upwards towards the **DISARM** position and immediately releasing (long enough for the trap to fire, but not giving the machine a chance to rearm). The Gearbox block (A rectangular block attached to the gearbox shaft) should stop in a position pointing towards the front of the machine.

2. If the Gearbox block is pointing directly towards the front of the machine, push the **ARM/DISARM** switch momentarily in direction of **DISARM/NUDGE** just enough to allow the block past its forward pointing position.

3. If the block has gone too far, rearm the machine and then disarm again until the desired position is achieved.

4. Disconnect the battery/power source from the machine once the block is in the correct position.

5. With the Gearbox block now pointing just past the forward pointing position, the throwing arm can be pushed slowly, **USING THE PALM OF THE HAND ONLY**, around counter clockwise .

6. As the throwing arm gets to the firing position (pointing direct to the back of the machine) the spring will take over, at which point the drive bolt on the Gear-box block stops the arm, and prevents it from firing.

This is **SAFE MODE** the arm is now trapped between the drive bolt in one direction and locked on the one-way bearing within the trap, it cannot move or release again until power is applied and the **ARM/DISARM** switch operated.

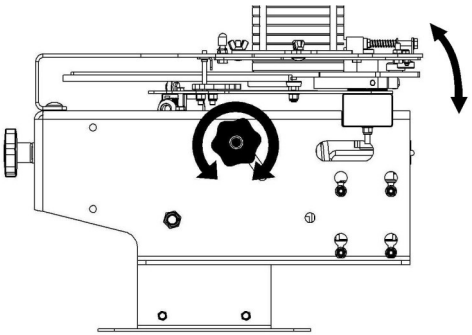
ALWAYS disarm the machine before carrying out loading, adjustment or maintenance.

Adjustment: Elevation

Setting Elevation angle

Trajectory of clays are from approximately 26 - 50 degrees.

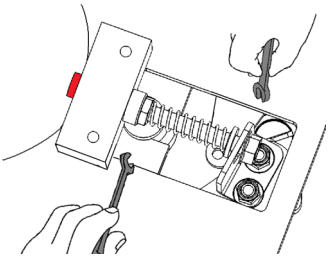
Loosen handwheel nut as shown, tilt to desired angle, re-tighten handwheel .



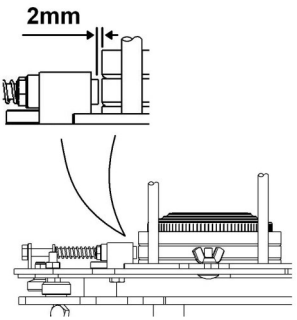
Be aware that if machine is already tilted upwards, when the hand-wheel is subsequently undone the machine will jolt forward. Support the weight of the machine from the top of the clay hopper when ad-justing the elevation angle.

Adjustment: Plunger Mechanism

As the arm rotates, the plunger presses gently on the outer rim of the remaining clay stack to hold it as the bottom clay is released from the iris plates. With the trap at rest and the clays pushed towards the two rear hopper rods there should be a visible gap between the second clay up in the stack and the red polyurethane plung-er tip.



The plunger gap should be around 2mm (1/16") and can be adjusted if required using two 10mm spanners/wrenches. Holding the half nut (located against the back of the brass plunger) adjust the rear locking nut clockwise to increase the gap or anti-clockwise to decrease it.

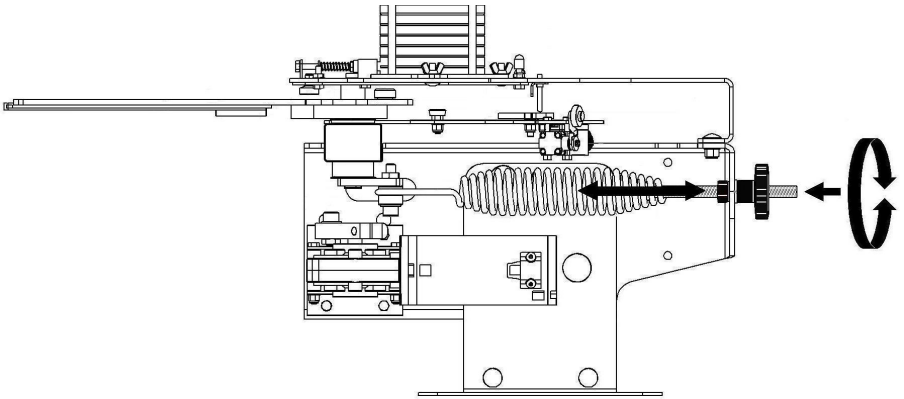


ALWAYS disarm the machine before carrying out loading, adjustment or maintenance.

Adjustment: Spring Tension

Spring adjustment is always easier if the spring attachment point is at its rearmost position, this relieves the spring of a large proportion of it's tension making adjustment much easier as well as reducing wear on the spring adjustment mechanism.

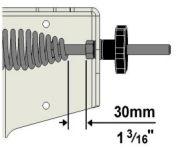
To achieve this, first perform the Safe Mode Procedure (see page **6**) to put the machine into safe mode and then nudge forward until the throwing arm projects forward from the front of the machine. At this point stop nudging and disconnect the battery.



Decrease tension—Using the handwheel loosen spring to desired position. Hand tighten inside nut to back of frame and clamp with a further turn of the handwheel.

Increase tension—Loosen handwheel one turn, then adjust the inner nut to allow the spring room to pull back. Using the handwheel tighten spring to desired position. Hand tighten inside nut to back of frame and clamp with a further turn of the

Important: leave 30mm (1 3/16") thread length between inside nut and spring coil. Increasing spring tension up to full length of thread will seriously detriment the performance of the machine and will cause spring damage or failure.



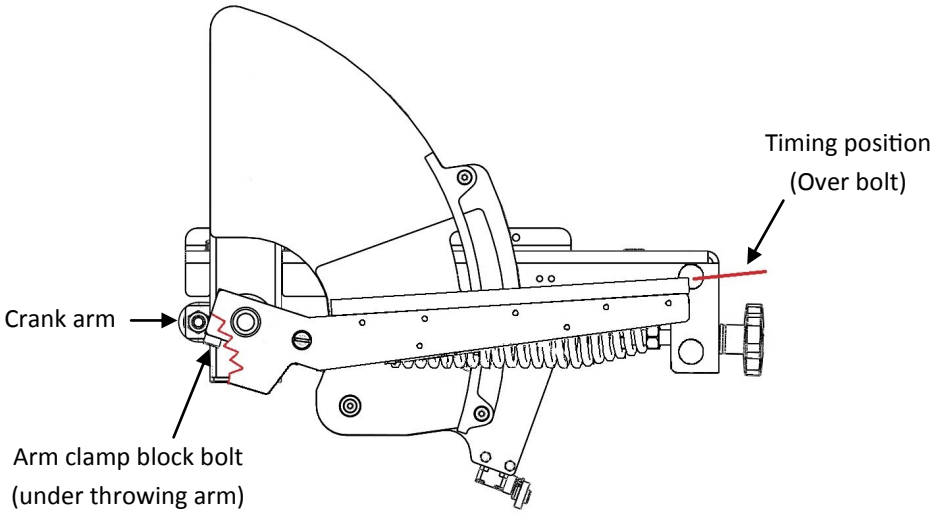
WARNING BEFORE ADJUSTMENT (Arm timing)

Part of this procedure requires you to work very close to the trap - before proceeding be sure you understand and have practised the procedure for putting the trap into safe mode (this can be found on page 6 of this manual) and fully understand when the trap is safe and when it is not.

Adjustment: Throwing arm timing

Perform the Safe Mode Procedure, Using the Disarm/Nudge button move the motor crank arm to a position just past the straight ahead position. If the block goes too far, rearm the machine (fire it) and then disarm again, repeating the procedure until the desired position is achieved. (The ideal position is such that when the spring crank arm is pointing straight ahead, the motor crank prevents any further movement of the arm.) Push the Throwing arm around until the spring crank arm points directly forward.

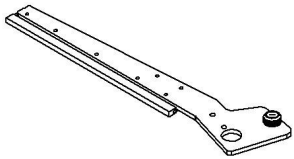
Disconnect the battery at this point. Loosen the arm clamp block and rotate the arm so the front of the yellow friction strip lines up with the centre of the second bolt head on the gull wing bracket (on the Merlin) (The right hand bolt head when viewed from the rear of the machine) Re-tighten the arm clamp block firmly. Your trap is now correctly timed.



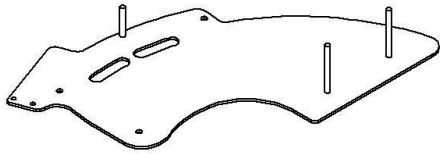
Spare Parts List:

For parts not listed please call Promatic or you local dealer / service agent.

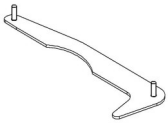
PLASTIC KNOB
D01V/100513



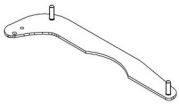
THROWING ARM
HB/2010



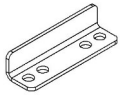
CASTING PLATE
HB/3100



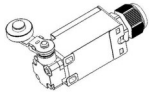
LEFT IRIS
EL/3550



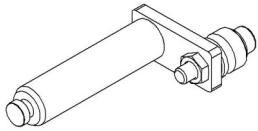
RIGHT IRIS
EL/3600



UPPER
BACKRAIL
A28A/CUTO



ROLLER LIMIT
SWITCH
E11V/83850



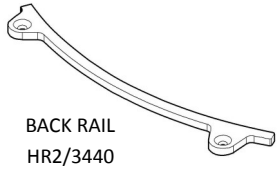
MAIN SHAFT
HB/2600

HARDENED
IRIS LINKSGE
CAM HB/3625

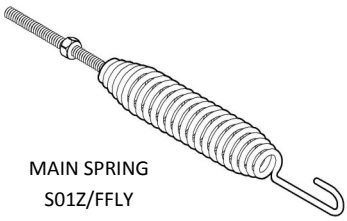
HARDENED
ARM LINKAGE
CAM HB/2405

SPRING BUSH
HB/2635

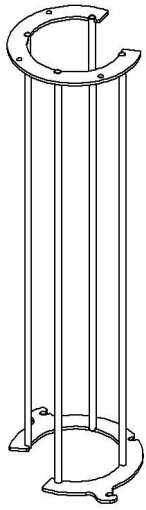
BRASS PLUNGER
C/W SOFT TIP
HK/1200



BACK RAIL
HR2/3440

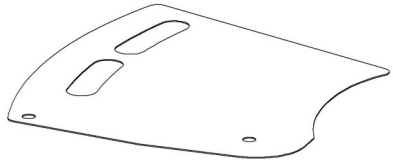


MAIN SPRING
S01Z/FFLY



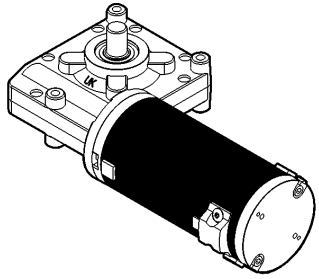
HOPPER
(UK clay)
CAR/B9

HOPPER
(USA clay)
CAR/B10



SOFT FALL PLATE
A28S/PAFQ

BATTERY 22Ah
SEALED AGM TYPE
E30V/SLC22



MOTOR & GEARBOX
M01V/50492E

Barclay Phelps CE Marking Consultants, 29/8 City Mill Lane, Gibraltar 646, Europe

CERTIFICATE & DECLARATION OF CONFORMITY FOR CE MARKING

Company contact details:

Promatic International Ltd.
Station Works, Hooton Road, Hooton, S Wirral, CH66 7NF, United Kingdom
Tel: +44(0)151 327 2220 Fax: +44(0)151 327 7075 e mail: info@promatic.co.uk

Promatic International Ltd. declares that their:

Clay Target Launchers listed as the following models
Elite, Hawk, Superhawk, Harrier, Harrier ABT/Wobble, Eagle, Eagle Battue, Hobby / Merlin, Ranger 8, Osprey/All American Ranger, Ranger Battue, Ranger ABT/Wobble, Sporter 400TT, Sporter 400TT ABT/Wobble, Super Sporter Battue, Super Sporter, Super Sporter Downhill Thrower, Super Sporter ABT/Wobble, Rabbit, Squirrel, Ranger Chondell, Chondell, Hunter Wobble, Huntsman, Huntsman XP, Fieldsman, Club Skeet, Pro Skeet, Int Skeet, Olympic Trap, Club 275 DTL/ATA, International DTL/ATA, Pro ABT/Wobble, Auto Trap DTL/ATA/ABT/Wobble, International Doubles DTL/ATA/Wobble and Sporter Doubles DTL/ATA/Wobble

are classified within the following EU Directives:

Machinery Directive 2006/42/EC
Electromagnetic Compatibility Directive 2004/108/EC

and further conform with the following EU Harmonized Standards:

EN 12100-1:2003+A1:2009 EN 12100-2:2003+A1:2009
EN 61000-6-3:2007 EN 61000-6-1:2007

Dated: 19 April 2011
Position of signatory: Group Technical Director
Name of Signatory: Graham Stephen Fair
Signed below:
p.p. Promatic International Ltd.

Promatic International Ltd.

Station Works,
Hooton,
South Wirral
CH66 7NF,
United Kingdom.

Tel: +44 (0) 151 327 2220 (General)
+44 (0) 1407 860800 (Sales)
Fax: +44 (0) 151 3277075

E-mail info@promatic.co.uk

Website: www.promatic.co.uk

Promatic Inc.

7803 West Hwy 116
Gower
MO 64454
USA.

Toll Free: 888.767.2529
Fax: 816.539.0257

E-mail: sales@promatic.biz

Website: www.promatic.biz